GAS COMPRESSOR STATION CONSTRUCTION REPORT

Name of Operator:	
H.Q. Address:	**Unit Name and Address:**
Co. Official: **Phone No.:** **Fax No.:** **Emergency Phone No.:** **Operator ID#:**	**Phone No.:** **Fax No.:** **Emergency Phone No.:** **Unit Record ID#:** **Inspection Record ID#:**

Persons Interviewed	Titles	Phone No.

OPS Representative(s): **Date(s):**

Company's Construction Maps (copies for Region Files)**:**

Description of Description of System:

GAS COMPRESSOR STATION CONSTRUCTION REPORT

Unless otherwise noted, all code references are to Part 192. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**

PART 192 DESIGN & CONSTRUCTION						
.51	**MATERIALS SPECIFICATIONS**		**S**	**U**	**N/A**	**N/C**
	.55	Qualification of Pipe # Manufacturer: # Manufacturing Standard: # Pipe Grade: # Outside Diameter (D): # Wall Thickness (t): # Wt. - lbs/ft: # Type of Longitudinal Seam: # Specified Min. Yield Strength: # Joint Design - Bevel: # External Coating: # Internal Coating: # Minimum Joint Length: # Footage or Miles:				
	.55	Does the steel pipe meet one of the **API** or **ASTM** listed specifications?				
	.63(a)	Are pipe, valves, and fittings properly marked for identification?				
	.63(c)	Were pipe, valves, and fittings marked with other than field die stamping?				
.101	**PIPE DESIGN**					
	.105(a)	Was the pipeline designed in accordance with this formula: **P = (2St/D) x F x E x T**				
	.113	Is the **longitudinal joint factor (E)** for steel pipe equal to **1**? (See table)				
	.115	Is the **temperature derating factor (T)** for steel pipe equal to **1**? (See table)				
.141	**DESIGN of PIPELINE COMPONENTS**					
	.145	Does each valve meet minimum requirements, or the equivalent, of **API 6A, API 6D, MSS SP70, MSS SP71, or MSS SP78**?				
	.147	Does each flange or flange accessory meet the minimum requirements of **ASME/ANSI 16.5, MSS SP44, or ASME/ANSI B16.25**, or equivalent?				
	.149	Are steel butt welded fittings rated at or above the pressure and temperature as the pipe?				
	.159	Is the pipeline designed with enough flexibility to prevent thermal expansion or contraction from causing excessive stresses in the pipe or component?				
	.161(d)	For a pipeline to operate at 50% of SMYS, are structural supports not welded directly to the pipe, but to a member that completely encircles the pipe?				
	.161(e)	Is each underground pipeline that is connected to a relatively unyielding line or fixed object provided with enough flexibility to allow for possible movement, or is it anchored?				
	DESCRIPTION					
	.163(a)	Is each compressor building located on property under the control of the operator?				
		Is the distance to adjacent property far enough to prevent the spread of fire?				
		Is there enough space around compressor buildings to allow free movement of fire fighting equipment?				
	.163(b)	Are buildings constructed with non-combustible material?				
	.163(c)	Are there two separate and unobstructed exits on each operating floor of each compressor building?				
		Do doors open from inside without a key?				

GAS COMPRESSOR STATION CONSTRUCTION REPORT

Unless otherwise noted, all code references are to Part 192. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**

.		DESCRIPTION (Cont.)	S	U	N/A	N/C
		Do doors swing outward?				
	.163(d)	Does each fence around a compressor station have at least two gates?				
		Does each gate located within 200 feet of a building open outwardly and when occupied must be operated from the inside without a key?				
	.163(e)	Is electrical equipment and wiring installed per ANSI/NFPA 70?				
	.165(a)	Are compressors protected from liquids?				
	.165(b)	Do liquid separators have a manual drain and if slugs of liquid could be carried into the compressor, automatic liquid removal, compressor shutdown, or high liquid level alarm?				
		Are liquid separators manufactured in accordance with Section VIII of the ASME Boiler and Pressure Vessel Code or a design factor less than or equal to 0.4 if constructed of pipe and fittings with no internal welding?				
	.167(a)	Does the compressor station have a emergency shutdown system?				
		Is the ESD able to isolate station and blowdown station piping?				
		Is discharge of gas from the blowdown piping at a location where the gas will not create a hazard?				
		Will ESD shutdown compressor, gas fired equipment and electrical facilities (except emergency lighting and circuits needed to protect equipment)?				
		Are there at least two ESD stations outside gas area near exits gates or emergency exists?				
	.169(a)	Does compressor satation have overpressure protection devices of sufficient capacity to prevent pressure greater than 110% MAOP?				
	.169(b)	Do relief valves vent in safe location?				
	.171(c)	Are there slots or holes in baffles of gas engine mufflers?				
	.173	Are buildings ventilated to prevent the accumulation of gas?				
		WELDING				
	.229(a)	Are all welders on compressor station piping and components qualified by means other than non destructive testing?				
	.229(b)	Has the welder with this same process and has a weld been tested and found acceptable within the last 6 months?				
	.231	Is the welding operation protected from weather conditions that could impair the quality of the completed weld?				
	.235	Are the welding surfaces clean, free of foreign material, and aligned in accordance with the qualified welding procedure?				
	.241	Are inspectors performing visual inspection to check for adherence to the welding procedure and the acceptability of welds as per Sec. 6, API Std. 1104.				
	.243(a)	Is a detailed written NDT procedure established & qualified?				
	.243(b)	Are there records to qualify procedures?				
	.243(c)	Is the radiographer trained & qualified? (Level II or better)				
	.245(a)	1. Are cracks longer than **8%** of the weld length removed?				
		2. For each weld that is repaired, is the defect removed down to clean metal and is the pipe preheated if conditions demand it?				
	.245(b)	1. Are the repairs inspected to insure acceptability?				
		2. If additional repairs are required, are they done in accordance with qualified written welding procedures to assure minimum mechanical properties are met?				

GAS COMPRESSOR STATION CONSTRUCTION REPORT

Unless otherwise noted, all code references are to Part 192. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**

		CONSTRUCTION REQUIREMENTS	S	U	N/A	N/C
	.303	Are comprehensive written construction specifications available and adhered to?				
	.305	Are inspections performed to check adherence to the construction specifications?				
	.307	Is material being visually inspected at the site of installation to insure against damage that could impair its serviceability?				
	.309(a)	Are any defects or damage that impairs the serviceability of a length of steel pipe such as a gouge, dent, groove, or arc burn repaired or removed?				
	.309(c)	If repairs are made by grinding, is the remaining wall thickness in conformance with the tolerances in the pipe manufacturing specifications or the nominal wall thickness required for the design pressure of the pipe?				
	.313(b)	If a circumferential weld is permanently deformed during bending, is the weld nondestructively tested.				
	.319(a)	When pipe is placed in the ditch, is it installed so as to fit the ditch, minimize stresses, and protect the pipe coating from damage?				
	.319(b)	Does backfill provide firm support under the pipe and is the ditch backfilled in a manner that prevents damage to the pipe and coating from equipment or the backfill material?				
	.461(c)	Is the external protection coating inspected (by jeeping, etc.) prior to lowering the pipe into the ditch?				
	.325(a)	Is there **12 inches** clearance between the pipeline and any other underground structure? If **12 inches** cannot be attained, are adequate provisions made to protect the pipeline from damage that could result from the proximity of the other structure?				
		CORROSION REQUIREMENTS				
	.455(a)	(1) Does the pipeline have an effective external coating and does it meet the coating specifications?				
		(2) Is a cathodic protection system installed or being provided for?				
	.471(a)	Are test leads mechanically secure and electrically conductive?				
	.417(b)	Are test leads attached to the pipe by cadwelding or other process so as to minimize stress concentration on the pipe?				
	.471(c)	Are bare test lead and the connection to the pipe coated?				
		TESTING REQUIREMENTS				
	.503(a)	(1) Is a hydrostatic pressure test planned to substantiate the MAOP?				
		(2) If the pipeline has been hydrostatically tested, have all potentially hazardous leaks been located and eliminated?				
	.505(a)	1. Is there a specified hydrostatic pressure testing procedure?				
		2. Is the **specified test pressure equal to: 1.1 x MAOP for Class 1 locations**, **1.25 x MAOP for Class 2 locations**, and **1.5 x MAOP for Class 3 and 4 locations**?				
	.505(c)	For pipelines which operate at **30% of more of SMYS**, is the minimum test duration for the pipeline at least **8 hours**? (Strength Test)				
	.505(e)	Is the minimum test duration for pretested fabricated units and **short sections of pipe** at least **4 hours**?				
	.515(a)	Does the operator take every reasonable precaution to protect the general public and all personnel during the test?				
	.515(b)	Does the operator insure that the test medium is disposed of in a manner that will minimize damage to the environment?				

GAS COMPRESSOR STATION CONSTRUCTION REPORT

Unless otherwise noted, all code references are to Part 192. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**

	TESTING REQUIREMENTS (cont.)					
	.517	Do the test records include the following:	**S**	**U**	**N/A**	**N/C**
		(a) Operator's name, name of operator's employee responsible for making the test, and the name of the test company used.				
		(b) Test medium used.				
		(c) Test pressure.				
		(d) Test duration.				
		(e) Pressure recording charts, or other record of pressure readings.				
		(f) Elevation variations, whenever significant for the particular test.				
		(g) Leaks and failures noted and their disposition.				
	.625	Is gas for domestic use odorized?				
	.735(b)	Are aboveground oil or gasoline storage tanks protected per NFNA No. 30? (Dikes)				
	.736(a)	Does the compressor building have a fixed gas detection and alarm system?				